



SAFETY DATA SHEET

SimuBone™ Bone Simulation Modeling Filament

EFFECTIVE DATE: 08/01/2022

REVISION NUMBER: VI.1

1 PRODUCT AND SUPPLIER INFORMATION

Product Identification:

Product Name: SimuBone™

Chemical Name: Polylactic Acid (PLA)

Recommended Use: Additive manufacturing

Supplier Information:

3DXTECH LLC

904 36th Street, Suite B

Grand Rapids MI 49500 USA

Phone: (616) 214-7965

Email: info@3dxtech.com

2 HAZARDS IDENTIFICATION

Regulation (EC) NO 1272/2008: Not classified as a dangerous product

Physical Hazards: None

OSHA Regulatory Status: This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

3 COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Concentration Range (%)
PLA Resin	9051-89-02	>85%
Remainder of formulation has been withheld as a trade secret.		

4 EMERGENCY FIRST AID

Eyes: Flush with water. Consult physician if symptoms persist.

Skin Contact: Wash with soap and water. For thermal burns from molten polymer, immediately flush with cold water. Do not attempt to remove cooled polymer from skin. Obtain medical attention.

Inhalation: Leave exposed area and seek fresh air. If irritation persists seek medical attention.

Ingestion: Not likely due to nature of product. If ingested, drink plenty of water. Do not induce vomiting. Consult a physician if symptoms persist.

5 FIRE AND EXPLOSION HAZARD

Extinguishing Media: Water spray, dry powder, and foam. Carbon dioxide (CO₂)

Safety Precautions for Persons exposed to products of combustion should wear NIOSH approved self contained breathing apparatus and full protective equipment.

6 ACCIDENTAL RELEASE MEASURES

Spill or release: Clean up by vacuuming or sweeping to prevent falls. If molten, allow material to cool and place into an appropriate container for disposal.

7 HANDLING AND STORAGE CONDITIONS

Precautions to be taken in handling and storage: Store in a dry, sprinkler equipped warehouse. Product as shipped is not a combustible dust. Mechanical handling can cause the formation of dusts. To reduce the risk for dust explosion do not permit dust to accumulate.

Waste Disposal: Dispose in accordance with applicable federal, state and local regulations.

8 EXPOSURE AND PROTECTION INFORMATION

Exposure Limits: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Respiratory Protection: A NIOSH approved respirator is recommended for protection against processing polymeric fumes, or from dust generated from grinding, sanding, or sawing operations.

Ventilation: Local exhaust is preferred.

Protection Gloves: : Canvas or cotton gloves are recommended.

Eye Protection: Safety glasses with side shields are recommended.

Other: No protective equipment is needed under normal use conditions.

9 PHYSICAL/CHEMICAL DATA

Form: Solid

Appearance: Tan Filament

Odor: Slight

Freezing Point: N/A

Solubility in Water: Insoluble

Specific Gravity: >1

% Volatile: N/A

Boiling Range: N/A

Vapor Pressure (MM HG): Negligible

Melting Point: This product does not possess a specific melting point. It softens gradually over a wide temperature range.

Note: Those physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10 STABILITY AND REACTIVITY

Polymerization conditions to avoid: None

Chemical Stability: Stable under normal conditions

Conditions to avoid: Incompatible materials, including strong oxidizing agents

Hazardous decomposition byproducts: Thermal decomposition can yield intense heat, dense smoke, phenols, hydrogen cyanide, carbon dioxide, and carbon monoxide.

11 TOXICOLOGICAL INFORMATION

No specific toxicological information is available.

12 ECOLOGICAL INFORMATION

No specific ecological information is available.

13 DISPOSAL

Waste Disposal: Waste or unused product may be discarded in accordance with state, federal, and local regulations.

14 TRANSPORT INFORMATION

Land Transport (DOT): Non-Regulated

Sea Transport (IMDG): Non-Regulated

Air Transport (ICAO/IATA): Non-Regulated

15 REGULATORY INFORMATION

TSCA: Complies

REACH: Complies

EINECS/ELINCS: N/A

DSL/NDSL: Complies

PICCS: N/A

ENCS: Complies

IECSC: Complies

AICS: Complies

KECL: Complies

ROHS: Complies

REACH: Complies

16 MISCELLANEOUS INFORMATION

Prepared by: Business Management

Issued: 08/01/2022

This information set forth herein has been gathered from standard reference materials and/or supplier test data and is, to the best knowledge and belief of 3DXTECH, accurate and reliable. Such information is offered solely for your consideration, investigation and verification, and it is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones which exist. 3DXTECH makes no warranties, expressed or implied, with respect to the use of such information or the use of the specific material identified herein combination with any other material or process, and assumes no responsibility therefore.

END OF SDS